ABSTRACT

Under present circumstances, where an increasing number of wireless communication systems employ the QAM method as a modulation method for frequency use efficiency enhancement as the speed of information transmission in the wireless communication systems increases, it is an object of the present invention to provide a channel estimation method for estimating a channel efficiently and accurately and establishing communication at high quality, that is, providing communication with excellent error rate characteristics. To achieve the above object, the present invention improves characteristics by calculating the channel estimation results variously for all data signal symbols and using them for demodulation. To accomplish the object, the present invention also pays attention to the frequency characteristics of fading in a radio propagation path and enhances the accuracy in channel estimation result calculation by using a band pass filter for eliminating the thermal noise that would increase the estimation error.